

# Notice of Allowability

Application No.

10/762,702

Examiner

Joseph W. Drodge

Applicant(s)

KOSLOW ET AL.

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed August 14, 2006.
2. ☒ The allowed claim(s) is/are 1,2 AND 4-28, now renumbered claims 1-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 09/22/06.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Claim 1 has been amended as follows: --

1. (currently amended) **[A] Apparatus comprising a valve , the valve** comprising:  
means for regulating flow of a fluid through said apparatus and **to** downstream components **[of said valve]** ;

a chamber having an inlet and an outlet, said chamber in fluid communication with said means for regulating flow when said valve is in an open position;

means for sensing pressure located downstream from the inlet of said chamber;  
and

means for preventing transmission of elevated pressure to **said** downstream components of said **apparatus [valve]**, said means for preventing transmission of elevated pressure in mechanical communication with said means for sensing pressure, wherein upon exposure to a pressure greater than a target pressure range said means for sensing pressure triggers said means for preventing transmission of elevated pressure to block the inlet to the chamber, and wherein upon subsequent exposure to a pressure lower than the target pressure range, said means for sensing pressure triggers said means for preventing transmission of elevated pressure to open the inlet to the chamber; **and**

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wherein said means for preventing transmission of elevated pressure to downstream components and said means for sensing pressure comprises a pressure actuated piston located within said chamber, wherein said pressure actuated piston comprises:

a shut off tip to reversibly block the inlet to said chamber to terminate further pressure increases inside said chamber;

a shaft extending from the shut off tip, the shaft in fluid communication with the inlet and outlet to said chamber unless the shut off tip is engaged blocking the inlet to said chamber; and

a pressure actuating surface responsive to pressure entering said apparatus, distal from the shut off tip, upon which a pressure greater than the target pressure range of said apparatus causes movement of said pressure actuated piston causing the shut off tip to block the inlet to said chamber. --.

Each of claims 3 and 29 have been canceled.

In line 1 of each of claims 2,7 and 8 "valve" has been replaced with -- apparatus

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In line 1 of each of claims 4,5 and 6 "valve" has been replaced with -- apparatus

-- and "3" has been replaced with -- 1 -- .

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Claim 27 has been amended as follows: --

27. (currently amended) An apparatus for removing contaminants from a liquid comprising:

a valve having an inlet for influent fluid flow and an outlet for effluent fluid flow, said valve prevents and senses pressure increases in components downstream from said valve such that said apparatus for removing contaminants can meet burst and fatigue life requirements for a given filtration application;

a flow regulator in liquid communication with said valve to provide a substantially fixed rate of flow-through said apparatus for removing contaminants within a target pressure range that allows adequate reduction of contaminants throughout the target pressure range; and

filter components downstream from said valve, said components including a housing and a diffusive filtration medium contained within said housing, wherein said filter components have sufficient structural integrity to meet burst and fatigue life requirements for the given filtration application, wherein upon exposure at said pressure at said valve inlet greater than a target pressure range for said valve outlet, said valve isolates said filter components and prevents fluid flow and transmission of said pressure greater than said target pressure range to said filter components, until a pressure equal to or less than the target pressure range is re-established; **and wherein said valve**

**further comprises:**

**a chamber comprising said inlet and outlet; and**

**a pressure actuated piston situated within the chamber, the piston**

**comprising:**

**a shut off tip that reversibly blocks the inlet to the chamber to isolate**

**said filter components from said fluid flow and from pressure greater than the**

**target pressure range;**

**a shaft extending from the shut off tip, the shaft in fluid**

**communication with said chamber unless the shut off tip is engaged thereby**

**blocking the inlet to said chamber and stopping fluid flow;**

**a pressure actuating surface responsive to pressure entering the**

**chamber, the pressure actuating surface distal from the shut off tip, wherein a**

**pressure greater than the target pressure range causes movement of said**

**pressure actuated piston causing the shut off tip to block the inlet to said**

**chamber and terminate fluid flow; and**

**a spring means to assist in moving the pressure actuated piston to**

**disengage the shut off tip from the inlet to the chamber** . --

Authorization for this examiner's amendment was given in a telephone interview with Robert Curio on September 22, 2006.

The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Figure 2 submitted August 14, 2006 must be re-submitted to delete reference numerals 110a, 110b and 125 which do not correspond to any reference numeral in any portion of the Specification and to otherwise size reference numerals in a standard legible font size, reference numerals including 110 and 115 are of too small a font size and would cause printing difficulties. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

The following is an examiner's statement of reasons for allowance: Independent claims 12 and 18, and claims dependent therefrom, distinguish for reasons of record over the prior art of record, for respective recitations of the valve or housing of valve having a piston having a flow-through core and a pressure actuating surface and connected to a shaft having a shut off tip capable of sealing a nozzle-shaped port.

Independent claims 1 and 27, as amended now similarly distinguishes in view of recitation of piston comprising shut off tip to reversibly block inlet to chamber, and shaft extending from tip and in fluid communication with inlet and outlet to chamber. Regarding claim 1, each of "means for regulating...", "means for sensing pressure..." and "means for preventing transmission of elevated pressure..." were considered to constitute means plus function limitations under 35 U.S.C. 112, 6<sup>th</sup> paragraph. The "means for regulating" was considered to encompass a flow regulator or flow restricting device as described at page 10, lines 7-17 of the Specification; "means for sensing" was considered to encompass a movable surface that is exposed to or senses pressure such as a tip of a piston or structural equivalents as described at page 11, lines 2-4 and page 12, lines 7-11; and "means for preventing" was considered to encompass a component such as a sealed piston or equivalent that is actuated by the means for sensing to block a flowpath as described at page 11, lines 2-5 and page 12, lines 9-19.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

September 22, 2006

  
JOSEPH DRODGE  
PRIMARY EXAMINER